



Water-Data Report 2006

**01391500 SADDLE RIVER AT LODI, NJ**

PASSAIC RIVER BASIN

LOCATION.--Lat 40°53'25", long 74°04'50" referenced to North American Datum of 1983, Lodi Borough, Bergen County, NJ, Hydrologic Unit 02030103, on left bank 560 ft upstream from bridge on Outwater Lane in Lodi, 1.3 mi south of Rochelle Park, and 3.2 mi upstream from mouth.

DRAINAGE AREA.--54.6 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--September 1923 to current year.

REVISED RECORDS.--WSP 781: Drainage area. WSP 1031: 1940(M). WSP 1552: 1929(M), 1936(M), 1938. WDR NJ-1969: 1967. WDR NJ-1970: 1968, 1969.

GAGE.--Water-stage recorder. Concrete control since Nov. 2, 1938. Datum of gage is 25.00 ft above NGVD of 1929. Prior to Nov. 2, 1938, at site 560 ft downstream at datum 2.54 ft lower.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diurnal fluctuations at low flow due to patterns of sewage effluent entering river upstream. Diversion upstream from station at Paramus by United Water New Jersey, for municipal supply (see 01390520). The flow past this station is affected by pumpage from wells by United Water New Jersey and others. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft<sup>3</sup>/s and (or) maximum (\*):

[e, estimated]			
Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 09	0715	3,080	8.82
Oct 13	e0100	*3,290	*9.35
Oct 14	2245	1,360	5.11
Dec 16	e1400	e1,800	e6.00
May 12	1030	1,580	5.59
Jun 24	2115	1,280	4.94
Jun 28	1515	1,840	6.09

## Water-Data Report 2006

**01391500 SADDLE RIVER AT LODI, NJ—Continued**

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**  
**DAILY MEAN VALUES**  
[*e*, estimated]

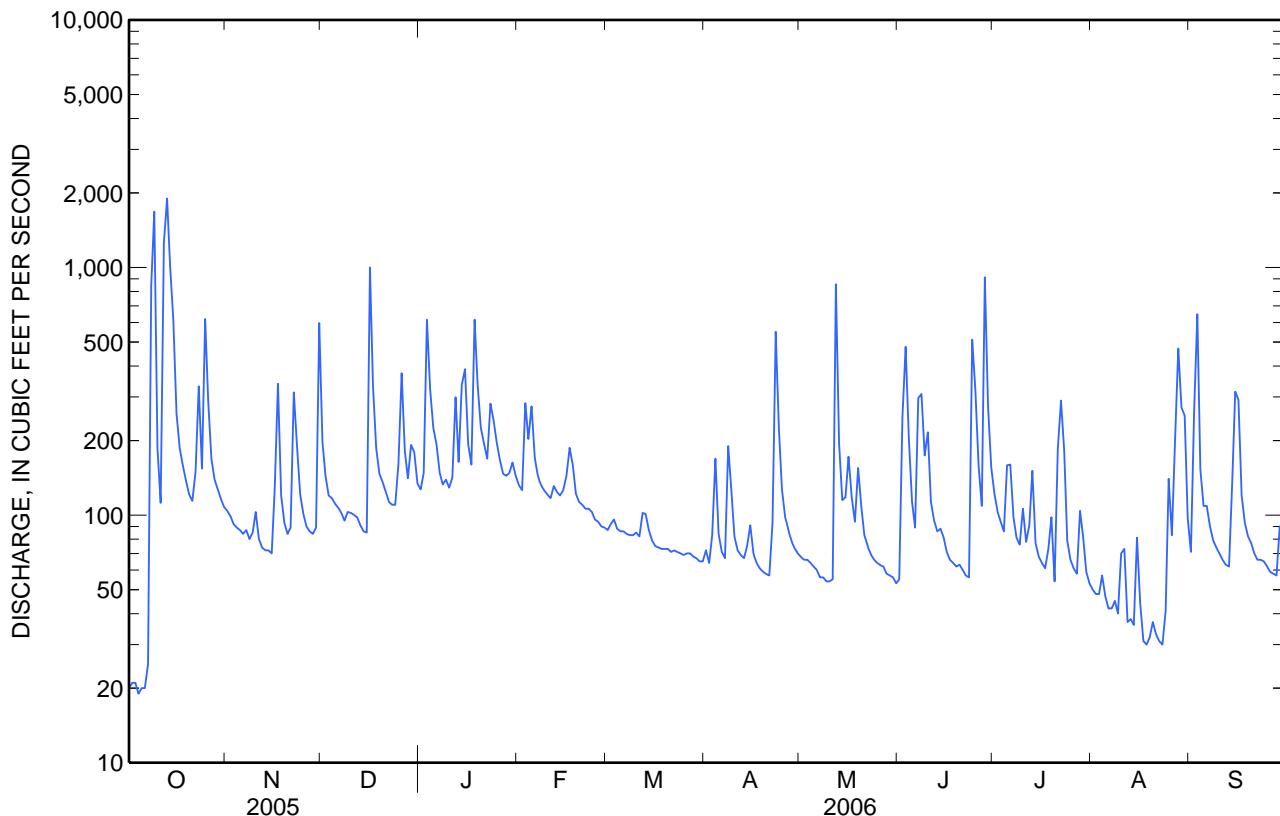
<b>Day</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>1</b>	20	104	198	127	132	87	72	68	55	122	50	71
<b>2</b>	21	99	144	148	126	92	64	66	249	103	48	262
<b>3</b>	21	92	120	615	283	96	83	66	478	94	48	648
<b>4</b>	19	89	117	323	203	88	169	64	204	86	57	153
<b>5</b>	20	87	111	225	275	86	84	62	113	159	47	109
<b>6</b>	20	84	107	193	171	86	71	60	89	160	42	109
<b>7</b>	25	87	102	e148	144	84	67	56	297	98	42	90
<b>8</b>	844	80	95	e133	132	83	190	56	308	81	45	79
<b>9</b>	1,680	85	103	e139	126	83	128	54	174	76	40	74
<b>10</b>	185	103	102	129	121	85	82	54	216	106	70	70
<b>11</b>	112	80	100	142	117	82	72	55	113	78	73	66
<b>12</b>	1,260	74	98	299	131	102	69	855	95	91	37	63
<b>13</b>	1,900	72	91	164	124	101	67	195	86	151	38	62
<b>14</b>	1,010	72	86	336	120	87	75	115	88	77	36	135
<b>15</b>	615	70	85	388	126	79	91	118	81	68	81	315
<b>16</b>	257	129	e1,000	193	144	75	70	172	71	64	44	292
<b>17</b>	186	339	331	160	187	74	64	118	66	61	31	120
<b>18</b>	158	120	186	616	159	73	61	94	64	73	30	93
<b>19</b>	137	93	147	e335	122	73	59	155	62	98	32	82
<b>20</b>	121	84	136	e225	113	73	58	108	63	54	37	77
<b>21</b>	114	89	124	194	110	71	57	83	60	185	33	70
<b>22</b>	150	313	113	169	106	72	93	75	57	290	31	66
<b>23</b>	331	190	110	282	106	71	550	70	56	182	30	66
<b>24</b>	154	121	110	243	103	70	222	66	511	79	41	65
<b>25</b>	619	101	161	197	96	69	127	64	318	66	140	62
<b>26</b>	289	90	374	167	94	70	98	63	158	61	83	59
<b>27</b>	169	86	181	147	90	70	87	62	109	58	202	58
<b>28</b>	139	84	141	144	89	68	79	58	913	104	470	57
<b>29</b>	127	89	192	148	---	67	73	57	275	82	272	90
<b>30</b>	116	597	179	163	---	65	70	56	156	59	252	63
<b>31</b>	108	---	134	144	---	65	---	53	---	53	97	---
<b>Total</b>	10,927	3,803	5,278	7,036	3,850	2,447	3,152	3,298	5,585	3,119	2,579	3,626
<b>Mean</b>	352	127	170	227	138	78.9	105	106	186	101	83.2	121
<b>Max</b>	1,900	597	1,000	616	283	102	550	855	913	290	470	648
<b>Min</b>	19	70	85	127	89	65	57	53	55	53	30	57

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2006, BY WATER YEAR (WY)**

	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>Mean</b>	69.6	89.3	102	108	117	153	154	116	88.9	73.2	68.9	71.5
<b>Max</b>	352	284	301	331	258	333	457	315	336	371	225	256
(WY)	(2006)	(1978)	(1984)	(1979)	(1973)	(1953)	(1983)	(1984)	(1972)	(1945)	(1955)	(1971)
<b>Min</b>	16.5	25.5	17.0	12.1	26.0	40.1	32.9	44.9	25.5	12.9	15.1	11.4
(WY)	(1936)	(1982)	(1981)	(1981)	(2002)	(1981)	(1985)	(1941)	(1999)	(1999)	(1966)	(1932)

**01391500 SADDLE RIVER AT LODI, NJ—Continued****SUMMARY STATISTICS**

	<b>Calendar Year 2005</b>	<b>Water Year 2006</b>		<b>Water Years 1924 - 2006</b>	
<b>Annual total</b>	48,032		54,700		
<b>Annual mean</b>	132		150		101
<b>Highest annual mean</b>				187	1984
<b>Lowest annual mean</b>				45.2	1981
<b>Highest daily mean</b>	1,900	Oct 13	1,900	Oct 13	2,970 Apr 5, 1984
<b>Lowest daily mean</b>	19	Sep 13	19	Oct 4	4.9 Sep 15, 1995
<b>Annual seven-day minimum</b>	20	Sep 30	21	Oct 1	7.1 Sep 10, 1995
<b>Maximum peak flow</b>			3,290	Oct 13	5,330 Sep 17, 1999
<b>Maximum peak stage</b>			<sup>b</sup> 9.35	Oct 13	<sup>a</sup> 13.94 Sep 17, 1999
<b>Instantaneous low flow</b>			13	Oct 1, 3, 4	1.0 May 25, 1935
<b>10 percent exceeds</b>	204		282		190
<b>50 percent exceeds</b>	96		94		70
<b>90 percent exceeds</b>	26		56		26

<sup>a</sup> From high-water mark in gage house.<sup>b</sup> From high-water mark outside gage house.

**01391500 SADDLE RIVER AT LODI, NJ—Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1962 to current year.

REMARKS.--Total nitrogen (00600) equals the sum of filtered ammonia plus organic nitrogen (00623), filtered nitrite plus nitrate nitrogen (00631), and total particulate nitrogen (49570). Bacteria samples were collected synoptically over a 30-day period during the summer.

COOPERATIVE NETWORK SITE DESCRIPTOR: Watershed Integrator, New Jersey Department of Environmental Protection (NJDEP) Watershed Management Area 4.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of the NJDEP. Bacteria samples were provided by the local county health department under the direction of the NJDEP through the County Environmental Health Act. Determinations of filtered ammonia, filtered orthophosphorus, BOD, total suspended residue, fecal coliform, E. coli, and enterococcus bacteria were performed by the NJ Department of Health and Senior Services.

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 1 of 4

[Remark codes: &lt;, less than; E, estimated.]

Date	Time	Turbidity white light, det ang 90+/-30	UV absorb- ance, 254 nm, wat flt corrcrd	UV absorb- ance, 280 nm, wat flt units	Baro- metric pres- sure, mm Hg (50624)	Dis- solved oxygen, mg/L (61726)	Dis- solved oxygen, mg/L (00025)	pH, water, unfltrd field, std units	Specif. conduc- tance, wat unf uS/cm (00400)	Temper- ature, air, deg C (25 degC (00095)	Temper- ature, water, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)
		NTRU (63676)	/cm (50624)	/cm (61726)	mm Hg (00025)	mg/L (00020)	mg/L (00301)	units (00400)	25 degC (00095)	deg C (00020)	deg C (00010)		
Nov 29...	1000	77	2.0	.092	.071	764	9.1	83	7.8	816	17.9	11.4	220
Feb 08...	1100	129	2.6	.093	.070	760	10.5	82	8.1	819	5.4	4.5	200
May 25...	0930	60	3.2	.097	.074	760	7.8	79	7.9	870	20.5	15.5	230
Aug 15...	1100	168	5.2	.144	.106	760	7.0	79	8.0	803	24.0	21.3	200

**WATER-QUALITY DATA  
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 2 of 4

[Remark codes: &lt;, less than; E, estimated.]

Date	Calcium water, filtrd, mg/L (00915)	Magnes- ium, water, filtrd, mg/L (00925)	Potas- sium, water, filtrd, mg/L (00935)	Sodium, water, filtrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor- ide, water, filtrd, mg/L (00940)	Fluor- ide, water, filtrd, mg/L (00950)	Silica, water, filtrd, mg/L (00955)	Sulfate water, filtrd, mg/L (00945)	Residue water, filtrd, sum of consti- tuents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia + org-N, water, filtrd, mg/L as N (00623)
Nov 29...	62.4	15.9	4.32	72.8	132	142	E.08	14.3	25.9	442	436	2	.57
Feb 08...	55.7	13.9	3.44	79.6	114	157	E.07	11.0	25.0	433	448	4	.68
May 25...	65.0	16.4	4.95	75.3	119	164	E.09	12.9	26.7	467	500	4	.73
Aug 15...	55.5	15.0	5.13	69.2	116	146	.10	9.9	25.2	425	--	23	.80

## 01391500 SADDLE RIVER AT LODI, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 3 of 4

[Remark codes: &lt;, less than; E, estimated.]

Date	Ammonia water, filtrd, mg/L (00608)	Nitrite + nitrate water, mg/L (00631)	Particulate nitrogen, susp, water, mg/L (49570)	Total nitrogen, water, filtrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Ortho-phosphate, water, filtrd, mg/L (00671)	Phosphorus, water, filtrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, filtrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
Nov 29...	.101	5.29	.10	5.9	6.0	.554	.58	.68	.5	<.1	.5	3.2	E1.8
Feb 08...	.170	3.94	.08	4.6	4.7	.294	.32	.37	.6	<.1	.6	3.0	E2.1
May 25...	.156	6.32	.05	7.0	7.1	.806	.82	.85	.9	<.1	.8	3.4	E1.8
Aug 15...	.127	6.10	.23	6.9	7.1	.865	.92	1.04	2.6	<.1	2.6	5.3	2.6

**WATER-QUALITY  
DATA  
WATER YEAR  
OCTOBER 2005 TO  
SEPTEMBER 2006**

Part 4 of 4

[Remark codes:  
<, less than;  
E, estimated.]

Date	Boron, water, filtrd, ug/L (01020)
Nov 29...	90
Feb 08...	62
May 25...	85
Aug 15...	107

**01391500 SADDLE RIVER AT LODI, NJ—Continued**

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

[Remark codes: <, less than; >, greater than.]

Date	Time	Instan- taneous dis- charge, cfs (00061)	Temper- ature, deg C (00010)	Enter- occi,		E coli, m-TEC MF, water, col/ 100 mL (31649)	Fecal coli- form, ECbroth MF, water, col/ 100 mL (31633)	MPN/ 100 mL (31615)
				m-E	MF,			
<b>Jul</b>								
12...	1041	66	23.0	520	500	5,000		
19...	1051	61	21.5	2,800	8,000	>16,000		
26...	1045	57	22.5	330	400	1,300		
<b>Aug</b>								
02...	1033	45	25.8	160	<10	2,400		
09...	1051	39	21.8	180	650	1,100		